

CITY COUNCIL STUDY SESSION ITEM

SUBJECT

Environmental Stewardship Initiative (“ESI”) Update

STAFF CONTACTS

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POLICY ISSUES

Resolution Nos. 7517 and 7614

In 2007, through these Council actions, Bellevue became a signatory to the U.S. Mayors Climate Protection Agreement (USMCPA). USMCPA signatories agreed to strive to reduce GHG emissions, by 2012, to 7% below their 1990 levels. This reduction target, which originated from the 1997 Kyoto Protocols, was adopted by all USMCPA signatories. The City has made progress towards this target but, like most of the other 1053 signatories, has not yet reached it.

DIRECTION NEEDED FROM COUNCIL

_____ Action
_____ Discussion
XX Information

Staff will update Council about key efforts and accomplishments of the ESI in 2012. The briefing will include the results of the City’s recent greenhouse gas emissions (GHG) inventory. No action is being requested of Council.

BACKGROUND/ANALYSIS

ESI was launched by the City Manager in 2006 with the goal of bringing a focused and integrated approach to the City’s environmental efforts. In 2007, Council adopted the City’s first GHG reduction targets. It was quickly apparent that this work, which crossed many disciplines and departments, required an enterprise-wide roadmap to guide actions and measure performance. Accordingly, an inter-departmental group undertook the task of articulating goals and objectives in this complex and rapidly evolving area. The group produced the “2009-2012 ESI Strategic Plan,” which has provided the framework for much of the work described here. The City and the scientific community have learned

much in the last few years and staff is currently incorporating those lessons into the 2013–2018 ESI Strategic Plan.

Many challenges lay ahead, but the City has made progress towards a number of the goals articulated in the Strategic Plan, especially with respect to actions at the organizational level. Less progress has been made on the community side. This is partially the result of a strategic decision to first put the organization in a leadership position before asking other members of the community to change their behaviors. Having made substantial progress on the organizational front, as described further below, we are now bringing more focus to work that engages the community. This shift is occurring at the same time that we gradually broaden the initiative's focus from that of "environmental sustainability" to that of "community sustainability." The key distinction between the two is that community sustainability is broader; it considers social, economic and environmental well-being as a part of a single system to build a thriving, healthy, and future focused community.

Achievements in Municipal Operations

Municipal Greenhouse Gas Emissions

The City has succeeded in reducing its municipal greenhouse gas emissions by 12% since 2006, down to 14,511 Metric Tons Carbon Dioxide Equivalents (MTCO₂e) in 2011. Staff is currently finalizing 2012 numbers but it appears that municipal emissions were down to approximately 13,890 MTCO₂e in 2012. An additional reduction of 19% would have been required to meet the Council target of 11,246 MTCO₂e. Although we did not reach the target by the end of 2012, the reductions achieved, as well as the clear reversing of the City's historical trends, are significant.

The major emissions sources in the City's municipal operations are shown in Chart 1 below. A marked reversing of the trajectory is seen as of 2006, the year in which the ESI was initiated. It should be noted that most of the reductions being shown were achieved through projects funded by the Energy Efficiency and Conservation Block Grants within the federal stimulus act, which are no longer available. Staff is actively looking for grants and other funding sources in order to continue this work.

Municipal GHG Emission Trends

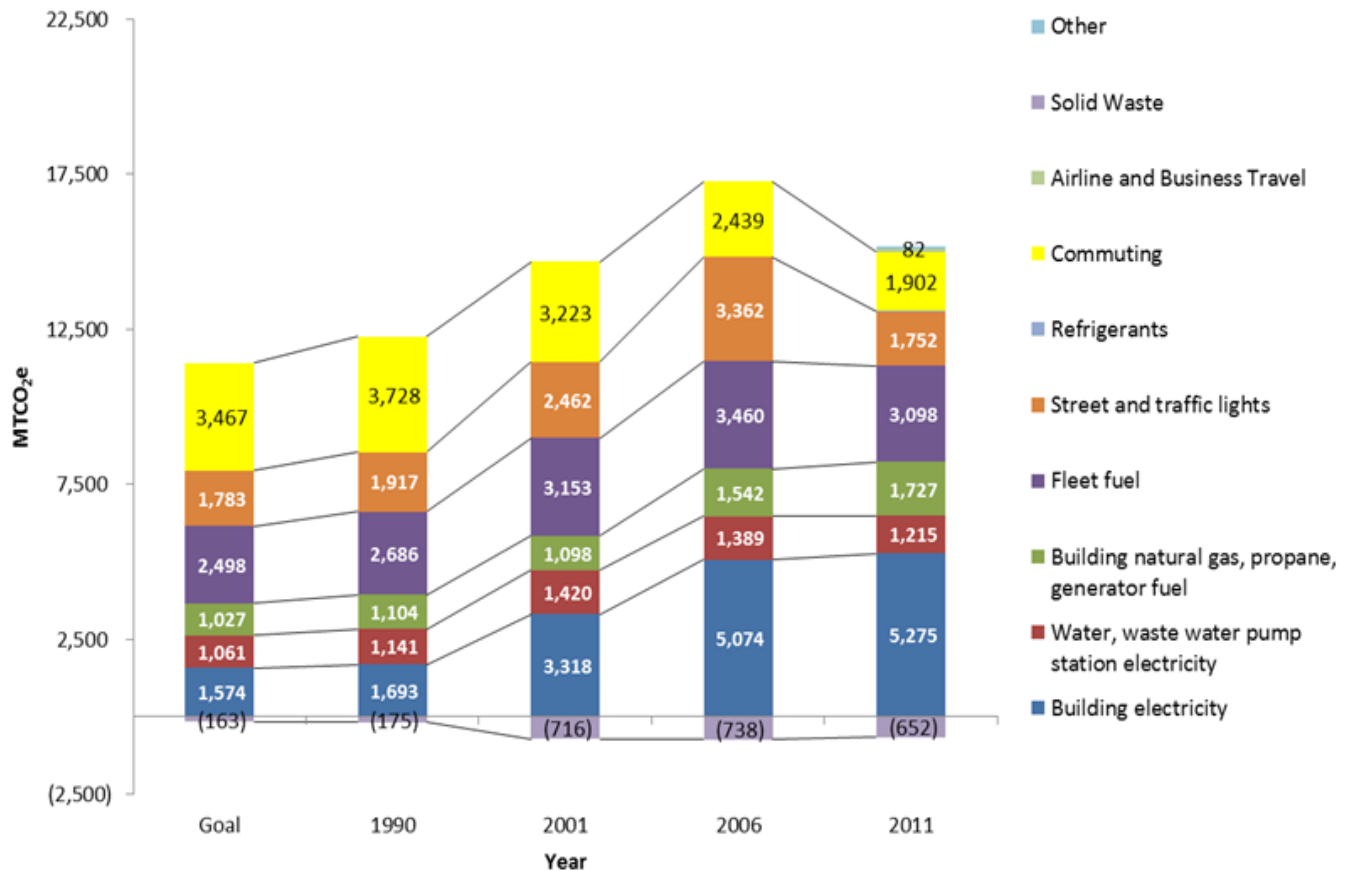


Chart 1 – Bellevue’s Municipal Greenhouse Gas Emissions reduction goal (7% below 1990) and estimated emissions from 1990 through 2011

The drive towards greater environmental stewardship and reduction of GHG emissions has led to multiple benefits for the organization and the community, as described below.

Energy

The Resource Conservation Manager (RCM) program has brought about cumulative energy savings of \$1,067,020 since April 2009 through operational changes, grant procurement, and identification of billing errors. Additionally, City Hall will have an ENERGY STAR score of 95 in 2013-- 46% better than the national median for energy used per-square-foot. As of November 2012, City Hall was using 22% less energy than the year ending December 2009 (adjusted for outside air temperature).

Fleet

90 hybrid vehicles were added (on a replacement basis) to the City’s fleet over the past 3 years, for an estimated annual savings of \$100,000 from 30,000 avoided gallons of fuel, which also resulted in 120 MTCO₂e of avoided emissions.

Water

City facilities saved 970,000 gallons of non-irrigation water in 2011, largely from conservation efforts at the Bellevue Aquatic Center. Irrigation continues to be the organization's largest use of water.

Paper

In 2012, 20% fewer sheets of paper were used for City operations than in 2009. The total paper savings in the 2010-2012 period (as compared to the City's practices in 2009), has been about 3.4 million sides of paper. Monetary savings from changes in paper usage and contract terms are as follows:

- \$81,203 in 2010 as compared to 2009,
- \$27,350 in 2011 as compared to 2010, and
- \$250,153 in 2012 as compared to 2011 (largely from renegotiated contract terms but partially (\$6,469) based on paper usage reductions).

Achievements with the Community

As mentioned above, ESI has more recently broadened its focus beyond the organization and towards the business and residential communities. Examples of this work are described below.

Community Greenhouse Gas Emissions

Community greenhouse gas emissions have increased 0.3% in the aggregate since 2006, as shown in Chart 2 below. However, GHG emissions per capita have decreased approximately 13%. Unlike much of the United States, the transportation sector is the single largest source of emissions in our region. Some of Bellevue's current policy direction, such as planning for denser, transit oriented neighborhoods, expanding mobility options, ped-bike planning, investing in cleaner fuel vehicles and infrastructure, for example, will help keep the numbers from rising as population grows. However, much more aggressive and larger scale changes, many of which are outside the direct control of the City (such as more stringent vehicle emission standards and higher renewable portfolio standards for utilities) will also be needed to reduce community emissions as the population grows.

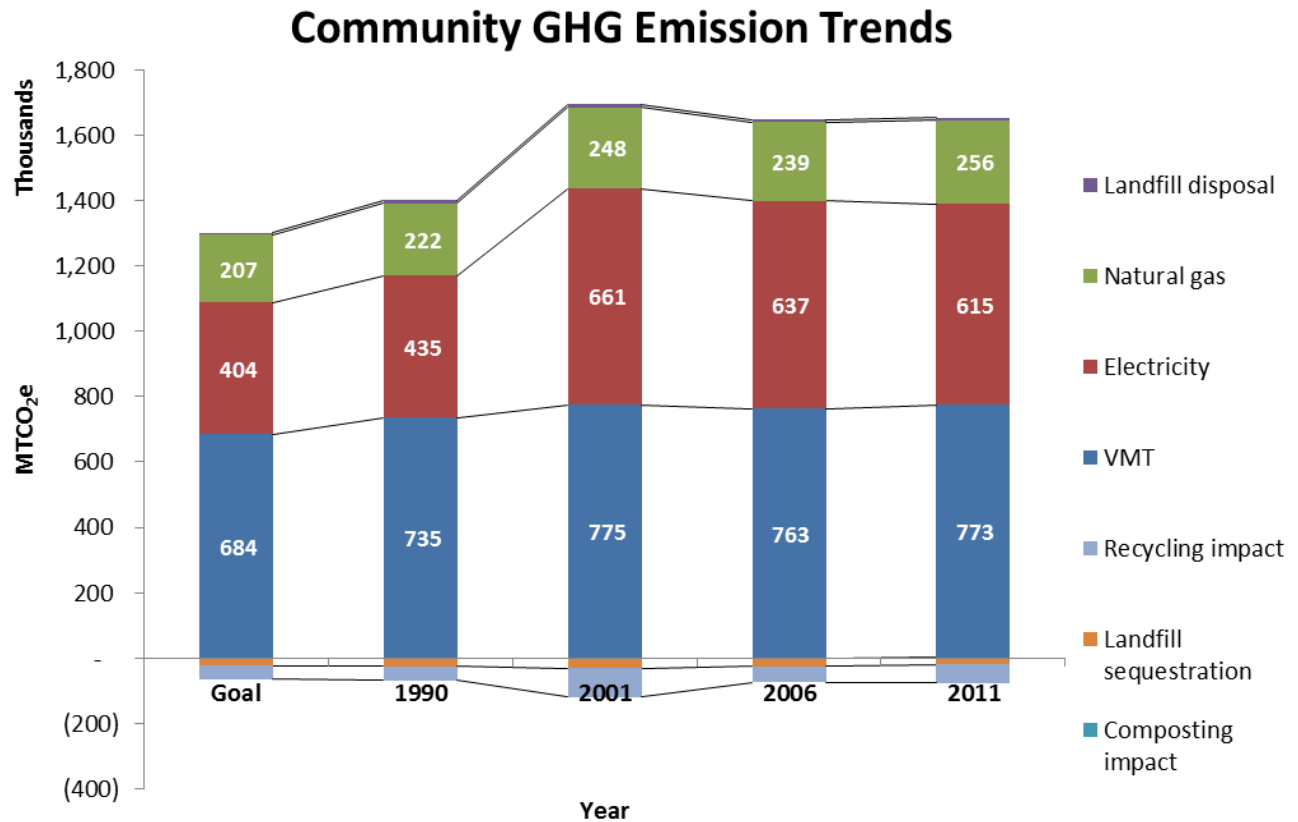


Chart 2 – Bellevue’s Community Greenhouse Gas Emissions reduction goal (7% below 1990) and estimated emissions from 1990 through 2011

Examples of specific work with the community include the following:

Eastside Sustainable Business Alliance (ESBA)

ESBA is a growing platform for supporting enterprises that want to operate sustainably and be networked into, and contribute back to, a sustainable local economy. ESBA brings together a growing pool of participants in varied industries and with varying needs, all of whom are interested in shared learning and connection, and many of whom are un-served by traditional business forums and associations. See www.esba.sustainableeastide.org.

ESBA programming includes regular information and networking events that feature local businesses and complement existing City outreach programs by covering topics such as renewable energy technologies, electric vehicle infrastructure, understanding the business case for sustainability, commute trip reduction, and business recycling services. In addition, ESBA builds public-private partnership programs, such as the Eastside Green Business Challenge, that bring bottom-line savings to businesses in the community.

Home Energy Reports (HER) Program

As previously reported to Council, the multi-city HER program with PSE saved participants 4.2 million, an average of \$45 per household per year ([Attachment 1](#)). Additionally, to explore any potential *subjective* benefits of the program, participants and non-participants were surveyed about their views on their local government.

The surveys found that recipients of the HERs generally held more positive views of their local governments. Statistically significant increases were found in report recipients. They were more likely to feel that their City is proactive in helping residents reduce their home energy usage and that their City wants to help them save money (see [Attachment 2](#)). Bellevue performed better than the other jurisdictions in the program across all the “Energy Benevolence Metrics” (see [Attachment 3](#)).

Sustainable Community Web Portal

This web portal, which is expected to be released in 2013, will provide the community an interactive site showcasing the City’s assets and resources for sustainable living. It will integrate maps, videos, and knowledge sections to provide fun, easy ways to learn about sustainable and healthy living. The goal of the site is to map the multitude of “sustainability assets” (social, environmental and economic) available in Bellevue and help residents and businesses appreciate, and help sustain, those assets.

What’s Next

Our initial focus in 2013 will be to revise and update the ESI Strategic Plan for the 2013-2018 period and to get the Sustainable Community web portal populated and functioning. ESI staff will also be working more closely with the Planning Department this year, hoping to integrate some of the Sustainable Communities frameworks into the Comprehensive Plan update as well as to the Economic Development strategy. Lastly, a significant amount of time will likely be spent seeking grant funding to support the continuation of the initiative now that the stimulus grant projects are completed. In order for the City to remain eligible for many grant funds, including all State transportation grants (of which the City has received approximately \$8.9 million since 2010), Council will need to adopt new greenhouse gas emissions targets in 2013. Staff will return to share the new ESI Strategic Plan with Council and to discuss alternatives for selecting new GHG emission reduction targets.

ALTERNATIVES

N/A

RECOMMENDATION

N/A

ATTACHMENT(S)

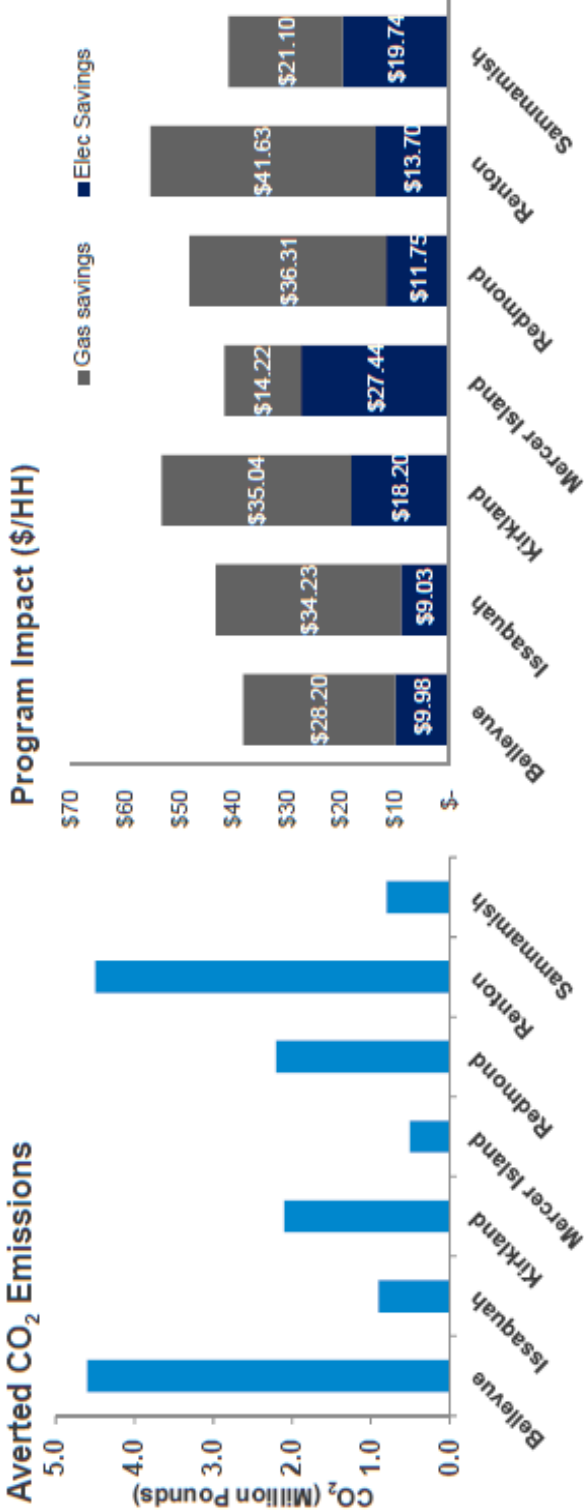
Attachment 1 – Home Energy Report (H.E.R.) Final Results
Attachment 2 – H.E.R. Improved Customer Perceptions
Attachment 3 – H.E.R. Bellevue Energy Benevolence Metrics

AVAILABLE IN COUNCIL OFFICE FOR REVIEW

N/A

Extraordinary environmental and financial impacts felt at the household level

The program averted 15.6M lbs CO₂* and saved residents \$4.2M**

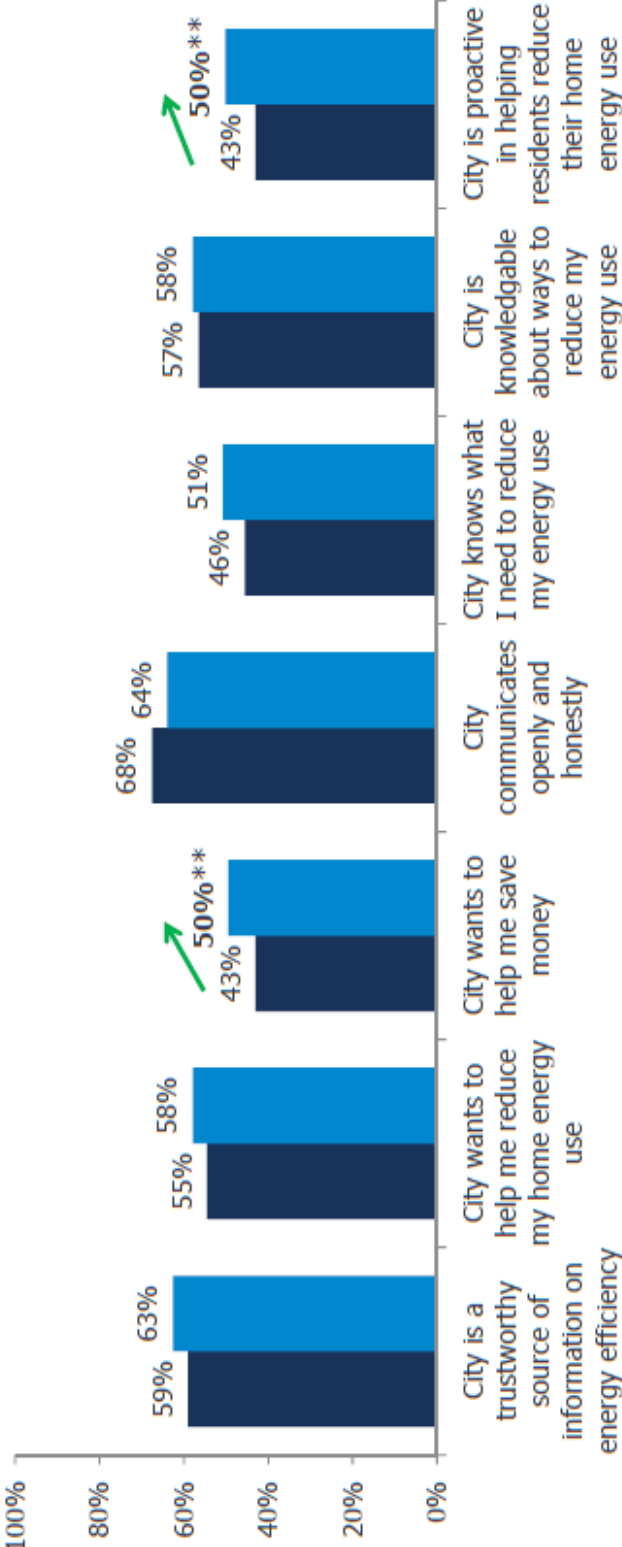


What does this add up to?

- 1,360 cars off the road for a year
- 801 houses off the grid for a year
- Average \$45 per household
- Aggregate City ROI of 800%
- Enough to feed 592 families of four for a year

HERs Improve Customer Perception of Cities

The Home Energy Reports program has increased resident receptivity receiving energy information and advice from their municipality.

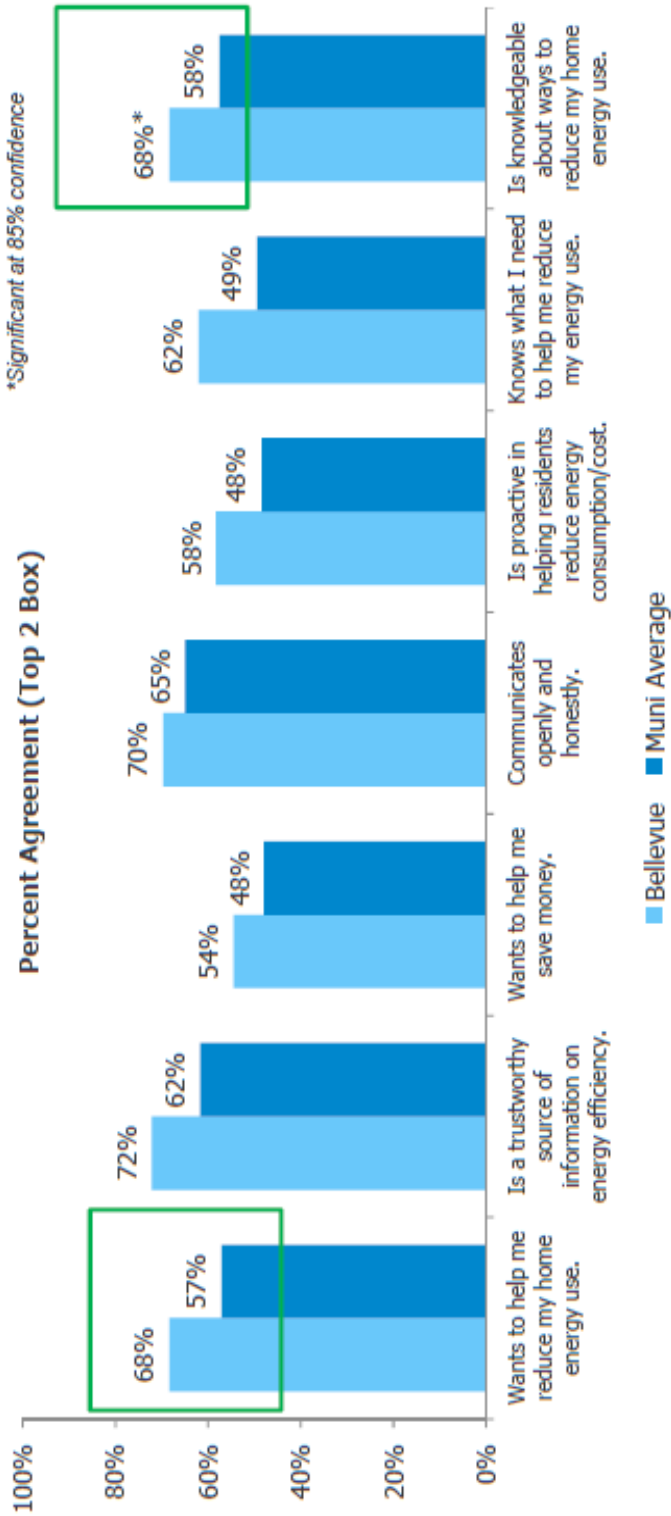


**Significant at 90% confidence

How much do you agree with the following statements (1-5 scale [N=800], Top two box reporting)

Bellevue Energy Benevolence Metrics

Across the board, Bellevue over-performs other municipalities on major benevolence metrics.



Now, thinking about your municipality, how much do you agree with the following statements (5-point scale) [N=79]